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AUTHOR Asche, F. Marion; And Others
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ABSTRACT

Legislation has largely treated planning and evaluation in vocational education separately. There has been a history of increasing requirements in planning and evaluation and of diffusing responsibility. In addition, existing policy regarding vocational education's dominant mission shows a general lack of clarity. Such factors inhibit the linking of planning and evaluation. The planning literature shows that vocational educators have tended to emphasize certain approaches to and uses of planning. Although planning theorists have developed multiple approaches that might address many of the contemporary problems facing vocational education, these approaches have had very limited use. A conclusion is that alternatives to the dominant "rational-comprehensive" approach to planning can facilitate the useful linking of planning and evaluation. The evaluation literature reveals a gradual evolution of the scope and methodology of evaluation in response to political and organizational contexts. The theme of evaluation utilization emerges as critical to the linking process. A hypothesis is that the primary benefit of using evaluation will be realized through its capacity to institutionalize organizational learning. These multiple streams of literature can be brought together in a proposal for a new metaphor for linking in which planning and evaluation are seen as mutually inclusive rather than exclusive. (Contains 102 references.) (YLB)

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LINKING PLANNING AND EVALUATION: REVIEW AND SYNTHESIS OF LITERATURE

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LINKING PLANNING AND EVALUATION: REVIEW AND SYNTHESIS OF LITERATURE

F. Marion Asche, Donald E. Elson, Deborah C. Strickland

with assistance from

Enamul Choudhury

Virginia Polytechnic Institute and State University

National Center for Research in Vocational Education
University of California at Berkeley
1995 University Avenue, Suite 375
Berkeley, CA 94704

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PREFACE

As the result of federal legislation, evaluation and planning in vocational education have received increased emphasis since the mid-1970s. States have responded by developing various models, systems, and procedures for the generation, collection, and analysis of labor market, enrollment, programmatic, and follow-up data. Most states have some approach to planning and evaluation at the state level. However, these approaches vary widely in scope and sophistication and usually do not support each other to a desirable extent.

The project *Linking Planning and Evaluation in Vocational and Technical Education* includes four major components. The first component resulted in a concept paper that presented a way of thinking about linkages and framed a series of questions to guide further investigation of the interaction between planning and evaluation. The second component involved a comprehensive review of planning and evaluation literature and is the subject of the present document. In the third component, all states and territories were surveyed to determine current practices related to planning and evaluation. Based on the survey results, three states were chosen for in-depth, on-site interviews. The final component of the project was a document designed to assist vocational planning and evaluation personnel in the development and implementation of coordinated planning and evaluation systems.

The purpose of this paper is to present a synopsis of the literature reviewed in the second phase of the project and to propose for consideration a new metaphor for linking based on that literature. The literature review is not simply a commentary or a synopsis but an exercise in critical reflection. As such, it not only attends to the literature but, more significantly, attempts to transcend the individual pieces of work by relating them in a conceptual map. This map is intended to help in applying the various planning and evaluation approaches to the unique characteristics and problems of vocational education. The final section of this document brings together several "streams" from the planning and evaluation literature and proposes a new metaphor for linking planning and evaluation within the larger policy design—the policy implementation continuum.

The literature search was conducted in three phases:

1. A manual search through the *Social Science Index* and the *Public Affairs Information Service Index* for publications on planning and evaluation and their linkages. The search covered literature produced between 1978 and 1988.

2. A broad Educational Resources Information Center (ERIC) search covering the period from 1978 to 1988 to locate publications regarding planning and evaluation and their linkages in vocational education. Three small searches were then run to isolate more specific materials using synonymous terms and alternative descriptors. Secondary searches were conducted for documents cited in primary references.

3. The searches completed in item two above were repeated near the close of the project to provide up-to-date material in finalizing this review.

The first two searches identified materials from a variety of areas in public administration, education, and other social sciences. None of the searches, however, identified research which specifically addressed the issue of linking planning and evaluation *in vocational education*. Lacking examples to provide insight into practices that facilitate or inhibit linking, it was decided that the available materials from related fields would be synthesized. Once the apparently relevant research and strategies from these fields were located, the material was critically reviewed for its applicability to the vocational education setting.

The results of the review are organized into the four sections of this paper. The first section reviews key ideas developed in the earlier concept paper and presents an overview of the statutory bases for planning and evaluation in vocational education. The definition and theoretical bases for planning are presented in the second section. The scope and methodology of evaluation, as well as political perspectives and their impact on utilization of evaluation, are reviewed in the third section. The final section looks at the interaction between planning and evaluation, examines the linkages and their constraints, and proposes a new metaphor for linking planning and evaluation in vocational education.

EXECUTIVE SUMMARY

This document is one of several items produced as part of a National Center for Research in Vocational Education (NCRVE) project titled *Linking Planning and Evaluation in Vocational and Technical Education.* A concept paper, *Linking Planning and Evaluation in Vocational Education: Concepts and Issues*, has also been prepared (Asche, Strickland, & Elson, 1992).

A review and synthesis document of this type necessarily omits literature of potential worth to the reader in an attempt to focus on that which "fits" within the frame of reference of the reviewers. In the present case, the authors operated with the assumptions that inadequate linkages between planning and evaluation exist within vocational education, that improved linkage would result in more effective reconciliation of policy design and policy action, and that there is a base of theory and research from which vocational education can benefit.

The review begins by providing a brief summary of the statutory bases for both planning and evaluation in vocational education. It was found that these two functions have largely been treated separately in legislation. There has been a history of increasing requirements in both planning and evaluation and of diffusing responsibility. In addition, there is a general lack of clarity in existing policy regarding vocational education's dominant mission. Such factors inhibit the linking of planning and evaluation. Yet, planning and evaluation can be more appropriately addressed as a result of their linking.

The review of planning literature revealed that vocational educators have tended to emphasize certain approaches to and uses of planning. While planning theorists have developed multiple approaches that might address many of the contemporary problems facing vocational education, these approaches have had very limited use. It was concluded that alternatives to the dominant "rational-comprehensive" approach to planning can facilitate the useful linking of planning and evaluation.

The review of evaluation literature revealed a gradual evolution of the scope and methodology of evaluation in response to evaluation's political and organizational contexts. During the course of the present research, the theme of evaluation utilization (in particular, strategic utilization) emerged as critical to the linking process. It was hypothesized that the

primary benefit of utilizing evaluation will be realized through its capacity to institutionalize organizational learning.

The multiple streams of literature related to planning, evaluation, evaluation utilization, strategic planning, and organizational learning were brought together in the final section of this review in an attempt to examine both the facilitators and barriers to linking planning and evaluation. A new metaphor for linking is proposed in which planning and evaluation are seen as mutually inclusive rather than exclusive. The pragmatic connection of planning and evaluation becomes, as stated by Hoch (1984), a "process of practical inquiry in which problematic experience stimulates the critical assessment of alternative solutions in a context of democratic participation and debate" (p. 340).

OVERVIEW OF PLANNING AND EVALUATION

Two common laments in the literature on planning and evaluation concern plans that do not get implemented and evaluation findings that do not get used. Planning and evaluation are generally treated as distinct functions. The separation of the two is evident not only in terms of various research methods but also in terms of the various professional communities and the different departments and personnel within an agency. The earlier concepts and issues paper from this project proposed that this is a counterproductive state of affairs that resides within an even larger cycle of policy design and policy implementation. The complaints about nonimplementation or distortion of policy intent on the one hand and charges of naive or ill-informed policy on the other parallel the laments in the planning and evaluation literature.

Planning and evaluation in vocational education have both practical and legislative bases. The formal processes have been strongly shaped by legislative requirements, but the practical planning and evaluation needs of states and localities also seem to be served by less formal procedures. These activities take place at a level subordinate to the more visible "plans" and "evaluations" produced to satisfy legislative requirements (Strickland & Asche, 1987).

The earlier concepts and issues paper proposed the notion—or more accurately, the hypothesis—that planning and evaluation is *ideally* a single process—an ongoing, regular dynamic between two interrelated functions. Such a notion assumes that planning and evaluation activities ultimately have the same overall mission and not simply different but complimentary missions. The primary mission for these activities was the reconciling of policy design and policy action. Practitioners often understand this relationship intuitively, but there are many barriers to realizing the ideal of a single planning and evaluation dynamic.

Operational Definitions

A beginning point in the investigation of linking planning and evaluation is the definition of the two terms. There is certainly no shortage of definitions for planning and evaluation: There is some disagreement among authors regarding terms and the

classification of *type*, but there is general agreement across the many definitions regarding *substance*. The following definitions are those which were developed in the earlier concepts and issues paper and which have proven to be most helpful to the present review (Asche, Strickland, & Elson, 1992).

Planning

Hudson and Davis (1976) included in their definition of planning the development and statement of goals; the determination of policy and program alternatives; the assessment of costs and resources; the evaluation of outcomes or effects; and the monitoring of allocations, decisions, and implementation activity. Regarding this definition, it is useful to think of planning as involving at least three major functions: (1) the setting and modification of goals and purpose; (2) the systematic determination of policy and program alternatives and of priorities; and (3) the use of appropriate needs, cost, resource, output, and outcome data to monitor programs and provide feedback to the planning process on a continuing basis. Asche (1989) labeled similar functions in the vocational education context as (1) substantive planning—setting the directions and mission for vocational education; (2) management planning—translating goals into priorities and allocating resources; and (3) operational planning—operationalizing goals and priorities as programs and services and providing feedback. Both of these definitions serve to illustrate the "fuzziness" of the line between the traditional purposes of planning and evaluation. The second section of this document expands on the concept of planning.

Evaluation

Scriven (1973) provided one of the most concise definitions of evaluation: to determine the worth or merit of whatever is being evaluated. Brophy, Groteleuschen, and Gooler (cited in Worthen & Sanders, 1987, p. 6) categorized three major purposes for evaluation: (1) planning procedures, programs, and/or products; (2) improving existing procedures, programs, and/or products; and (3) justifying (or not justifying) existing or planned procedures, programs, and/or products. There is general agreement that evaluation may serve either a *formative* purpose (to improve a procedure, program, or product while it is in operation) or a *summative* purpose (to evaluate the procedure, program, or product in terms of continuance or discontinuance).

These views of evaluation include functions often ascribed to planning, just as certain planning functions might easily be considered part of evaluation. Without an informed awareness of the overlap, the potential for conflict and dysfunction is apparent (Asche et al., 1992). The third section is devoted to a discussion of the scope and methodology of evaluation.

The Statutory Basis of Planning in Vocational Education

The genesis of planning in vocational education was the *Smith-Hughes Act of 1917* (U.S. 64th Congress, 1917)--particularly sections five, eight, and ten. The act provided the "legal basis on which both state and federal field representatives could make administrative decisions" (Swanson, 1966, p. 68). In general, states locked into the statements of intent derived from the requirements of the act as a model for planning. McDonnell and Grubb (1991) noted that "as the federal government expanded its own programs and more precisely targeted aid, it shaped state policy and local service delivery" (p. 2). As a result, state plans took on the character of "compliance documents" to ensure the continuity of state programs throughout changing administrations. However, planning for compliance failed to initiate planning for change. Barlow (1990) suggested that policy decisions for vocational education are influenced by changes in federal legislation and societal views:

> Policy serves to guide strategies for implementing educational programming at the local, state, and federal levels. In the latter case, it seems clear that federal legislation becomes the same as federal policy. Moreover, in spite of the constitutional view that education is a right of the states, when states accept federal monies for vocational education, the expenditure of those dollars must be in accordance with federal guidelines, and thus federal policy becomes the policy of the state. Similarly, state policy strongly influences local policy in many areas. (p. 25)

The compliance character of planning became more entrenched in the period from 1963 to 1975 with the passage of the *Vocational Education Act of 1963* (U.S. 88th Congress, 1963) and the subsequent *Vocational Education Amendments of 1968* (U.S. 90th Congress, 1968) and *Education Amendments of 1972* (U.S. 92nd Congress, 1972). Under the *Vocational Education Act of 1963*, states developed five-year plans (updated yearly) and annual plans. To develop these plans, states initiated more regular data collection procedures, evaluated the previous year's activities, determined goals for the

following year, and produced a written plan (Moss, 1983). After state advisory councils were established by the 1968 Amendments, all state plans required approval of the state vocational education councils. In addition, the state plans indicated how vocational funds were to be distributed to groups with special needs.

The *Education Amendments of 1976* (U.S. 94th Congress, 1976) reiterated most of the planning requirements of the 1963 act. In addition, the 1976 Amendments emphasized

1. the importance of serving the disadvantaged, the handicapped, women, and other minority groups;

2. the concern for improving the efficiency of vocational education and for coordinating it with other federal and state occupational training programs;

3. the review and preparation of recommendations for long-range plans; and

4. the creation of national and state occupational information coordination committees (NOICCs and SOICCs) to develop and monitor management information systems. (Moss, 1983)

David (1981) reported that prior to the 1976 Amendments, planning documents were very compliance oriented. By 1980, David (1981) noted, "The States were complying with the procedural requirements of the statutory provisions. But whether this meant that the desired kind of systematic planning of vocational education programs had been generally achieved is another question. . . . State officials were still reporting in 1980 that the State plans were being produced for compliance purposes" (p. IX-4).

In 1984, the *Carl D. Perkins Vocational Education Act* (U.S. 98th Congress, 1984) made many changes in vocational education. Specifically related to planning was the requirement for two-year plans that placed greater emphasis on students with special needs.

The Statutory Basis of Evaluation in Vocational Education

State advisory committees were established by the *Vocational Education Act of 1963* (U.S. 88th Congress, 1963). One of the responsibilities of these advisory committees was the evaluation of vocational programs within their respective state (Wentling, 1980). Before that time, very little evaluative action took place in state or other educational agencies. However, Wentling (1980) reported that

> most of the state advisory committees did not assume the responsibility for evaluation as the legislation had intended. It as not until the passage of the *Elementary and Secondary Education Act of 1965* [*ESEA*] that evaluation really became a prime concern of educators at the state and local level. In essence, ESEA legislation required that each project conducted under Title I and III possess a specific evaluation component—to include a plan for the evaluation of process and product. (p. 7)

The *Vocational Education Amendments of 1968* (U.S. 90th Congress, 1968) re-emphasized the requirements of the 1963 act. For instance, it parceled out the evaluation activities to the national council and the state advisory councils. These responsibilities included the following:

1. "Review the administration and operation of vocational education programs, including the effectiveness of such programs in meeting the purpose for which they were established" (Section 104(a)(2)(B)).

2. "Conduct independent evaluations of programs carried out under" this act (Section 104(a)(2)(C)).

3. "The National Council shall review the possible duplication of programs at the postsecondary and adult levels within geographic areas. . . ." (Section 104(a)(5)).

4. The State advisory council shall, "evaluate vocational education programs, services, and activities under" this act (Section 104(b)(1)(B)).

The *Educational Amendments of 1976* (U.S. 94th Congress, 1976) expanded the mandate for evaluation efforts, including various new components: state employment

needs evaluation; program review; fiscal audit; entry-level jobs skills training programs evaluation; and a uniform, national vocational education data reporting and accounting system. The responsibility for these efforts was dispersed among state advisory councils, state boards, the Commissioner of Education, the Bureau of Occupational and Adult Education, the National Center for Educational Statistics, the National Occupational Information Coordinating Committee, the National Advisory Council on Vocational Education (NACVE), the National Institute of Education (NIE), and state manpower services councils.

David (1981) summarized the evaluation requirements of the 1976 Amendments when he wrote that "the new provisions affecting evaluation constituted a key feature of Federal legislation. For the first time, Federal and State Governments were required to conduct systematic program evaluations" (p. IX-3). According to David (1981), evaluations conducted in most states before the 1976 Amendments were informal. After reviewing three NIE studies of state evaluation practices conducted from 1978 through 1981, David (1981) concluded that "only one of the four approaches to evaluating the effectiveness of programs specified in the regulations—that dealing with planning and operational processes—has the potential to prove useful for the purposes of improving programs and decision making on program offerings, at least in the immediate future" (p. IV-22).

The *Carl D. Perkins Vocational Education Act* (U.S. 98th Congress, 1984) re-emphasized the stipulations of the 1976 Amendments for program evaluation in individual states. The net effect of this and previous statutory requirements has been to reinforce the compliance activity that marks the current general status of state plans (Strickland & Asche, 1987, p. 13).

Recent Developments in Vocational Education Legislation

The *Carl D. Perkins Vocational and Applied Technology Education Act of 1990* (U.S. 101st Congress, 1990) continued the emphasis on statutory planning and evaluation:

> Congress continues its reliance on inducements to influence who is served in vocational education. At the same time, expanded definitions of the policy problem by the business community and others have led Congress to move beyond its traditional emphasis on policy targets; recent legislation

> now specifies the nature of the services to be provided and requires that the outcomes of those services be publicly reported. (McDonnell & Grubb, 1991)

The act enumerates a long list of assurances required of a state wishing to receive funds. Evaluation is required on two new and significant fronts. First, a state must conduct an assessment (Section 116) of all vocational programs prior to the preparation of the state plan. The second evaluation is based on the "core standards and measures of performance" (Section 115). The performance measures and standards are mandated in specific areas. However, the states are given some latitude in the exact statement of the performance measures and standards and the level at which the standards are set. The act continues the tradition of past acts and amendments of legislating the procedures to follow in evaluating vocational programs. Section 117 requires an annual evaluation of "the effectiveness of the program." The section goes on to mandate the development of a "local program improvement plan" and a "state and local joint plan." These areas of assessment require a focus on student outcomes. The act increases the emphasis on traditional labor market, training capacity, and special populations services. These requirements for planning and evaluation support the notion that planning and evaluation in vocational education are driven by legislative mandate. Thus, planning and evaluation continue to be compliance-oriented activities at both the state and local levels.

Summary

This section has presented operational definitions of planning and evaluation and a general overview of the statutory basis of planning and evaluation in vocational education. There is a legislative history of increases in the amount and specificity of required planning and evaluation. With these increased responsibilities, states and localities have attempted to incorporate multiple perspectives regarding the mission of federally supported vocational education. However, the separation of legislative language dealing with planning requirements from that dealing with evaluation, the dispersion of responsibility among multiple agencies and levels, and the lack of clarity of a dominant mission for vocational education all appear to have contributed to the major problem that is the focus of the present study: the general failure of establishing planning and evaluation as mutually supportive activities.

PLANNING

There has been no lack of desire among vocational educators to make the planning, delivery, and evaluation of vocational programs more rational. As reviewed in the first section of this document, planning in vocational education has a statutory history dating to the original *Smith-Hughes Act of 1917.* Revisions of that and subsequent acts have increased emphasis on planning (and evaluation) with additional requirements and with the dispersion of responsibility and oversight among agencies.

This section presents an overview of planning in vocational education in four areas: (1) definition of planning, (2) questions faced by vocational education planners, (3) planning theories or approaches, and (4) analysis of planning approaches for application to vocational education.

Definitions of Planning

A plan may be defined simply as a map from which to proceed from a present state to certain future states. As geographical maps come in different forms—depending on the intended use and the terrain—so does planning. Within organizations, the meaning of planning is shaped in the actual formation of strategies. Given this general orientation, the meaning of planning varies. For example,

1. planning may be conceived simply as future thinking—that is, as taking the future into consideration;

2. planning may be equated with following formal procedures such as a program planning budgeting system (PPBS) and articulating results;

3. planning may also be understood in terms of programming, where the task is to justify and elaborate an accepted strategy rather than to conceive one.

Mintzberg (1983) described planning as organizational foresight—"drawing strategists together to speculate about the future and making sure that such speculation takes place" (p. 323). Beebe (1966) defined planning as the exercise of foresight. Hudson and Davis (1976) included the development and statement of goals; determination of policy and

program alternatives; assessment of costs and resources and evaluation of outcomes or effects; and the monitoring of allocations, decisions, and implementation activities.

As stated in the first section of this review, planning is considered to involve—ideally at least—three major functions: (1) the setting and modification of goals and purpose; (2) the systematic determination of policy and program alternatives; and (3) the use of appropriate needs, cost, resource, output, and outcome data in monitoring programs and providing feedback for the planning process on a continuing basis. It becomes apparent that as one's definition of planning becomes more comprehensive, the differences between planning and evaluation become less clear.

Planning in vocational education has been criticized for being viewed primarily as a means for obtaining resources, a view which results in a "compliance" mentality among vocational planners (Strickland & Asche, 1987). It has also been observed that planning at lower levels is modeled on or dictated by the requirements of higher levels (Copa & Moss, 1983). A third common observation has been that vocational education planning has attempted to implement a rational-comprehensive approach to the almost total exclusion of other approaches. To the extent that these characterizations are accurate, they represent a rational response to federal legislation and regulations in which states and localities are viewed as sharing certain similarities and in which funding is contingent upon compliance. A reasonable hypothesis would be that vocational education has not been well served by such a restricted view of planning, especially considering the large portion of local and state planning resources that have been devoted to rationalizing programs that are only minimally funded by the federal sources.

Most observers agree that the primary thrust of planning in vocational education has been to make the process more rational. Several assumptions underlie the notion of rational planning and have been summarized by Schmidtlein (1983):

1. The technical analysis of problems, goals, and change strategies produces sufficient understanding and agreement to permit the establishment of goals and priorities. This implies that conflicts are based principally on lack of understanding rather than on fundamental disagreements over values and self-interests.
2. The area subject to planning is sufficiently understandable so that crucial relationships can be determined, technologies for change can be developed and outputs can be identified and measured.
3. The economic, social, human, and information resources necessary to design, implement, and evaluate plans must be available. If the

money, the ideological commitment, the human talent, and the information technology are inadequate, planning will, to that extent, be inadequate.

4. The rate of change, deadlines, and competing priorities in the environment must allow sufficient time for analysis, an essential element in planning.
5. The consequences of planning must serve the requirements of the roles of key participants. (pp. 52-53)

Each of these assumptions has relevance for vocational education. First, purely rational approaches to planning will not resolve fundamental disagreements among decisionmakers that are based on values or self-interests. Second, rational planning assumes a certain state-of-the-art knowledge in an area. If research has not been conducted or has not been fruitful in identifying critical variables and relationships or if the variables cannot be reliably measured, rationalization of the planning process may be seriously restrained. In vocational education, the quality of available data on programs, students, and the labor market has been questioned. Third, planning requires human and fiscal resources and commitment on the part of decisionmakers on the basis of planning outcomes. Finally, planning must operate in a climate that is realistic, both in terms of the demands placed on planners and in terms of the compatibility of the planning process with the decision-making structure within an organization.

Concerns Faced by Vocational Planners

Several very basic concerns have faced vocational education planners over the years. Perhaps the most basic is alluded to above: the degree of belief in the viability of rationality as it applies to future events. Mannheim (1949) distinguished between functional and substantial rationality. Functional rationality relates ends to means; whereas, substantial rationality attempts to deal with the appropriateness of ends themselves by studying the structural relations of the social system. Defining the role of planning in vocational education is still an attempt to deal with this very basic issue of whether the primary function of planning is allocative (serves to increase the efficiency of means-ends linkages) or substantive (questions ends themselves even though they are often legislatively determined).

Another concern is the viability of bureaucratically centralized planning in a social structure (i.e., education) characterized by lack of central control. Related to this is the

question of whether planning should be largely inductive (from local to state to federal) or deductive (state and local planning follows an overall federal design for vocational education) (Moss, 1983, p. 14). Yet another issue relates to the utilization of planning since planners may serve to clarify options or may use coercive power to reduce individual options for the (supposed) collective good.

For instance, the following were posed as "front-end" questions faced by vocational educators (Asche, 1985):

1. Should the planning process extend beyond that necessary to comply with federal and state requirements?
2. To what extent should planning deal with the appropriate ends of vocational education? Should planners be restricted to maximizing allocative decisions?
3. To what extent should planning be centralized? Which decisions should be made in a top-down fashion; which in a bottom-up participatory or advocacy fashion? Which should be made within program areas and which across-the-board? Is a mixed model workable for vocational education planning?
4. To what extent can empirical decision theory methods be used cost-effectively? How much of the process should be data based; how much should be social process? (p. 12)

In order to deal with questions such as these, it is helpful to have a broader view of planning approaches or models than has traditionally been the case in vocational education. Major theoretical developments in planning reflect different philosophical assumptions and parallel major historical periods. Vocational education planning, however, has tended to be closely tied to the requirements of major federal vocational education acts and has reflected neither the complexity nor the diversity of planning theory in general. The following provides a brief synopsis of several major traditions in planning theory.

Planning Theories or Approaches

Friedmann and Hudson (1974) provided a classification of major approaches to planning that highlights major differences among them. Some approaches grew out of "traditional rationalism" and focused on how decisions can be more rationally made. In this sense, most decision making was directed toward allocating resources and seeking optimization. In contrast, some approaches were based in organization development and focused on ways to achieve change in organizational structure and behavior. Rational

decision theory was characterized as improving the quality of decisions with little regard for implementation. Organization development focused on the developmental/experimental process of interpersonal interactions and on organizational structure rather than on the decisions themselves.

Friedmann and Hudson's third classification, "tradition of empiricism," focused on the actual behavior of large scale political and economic systems. An oversimplified characterization of these approaches is that empirical investigation of operating systems will reveal the impact of variables that can then be used in predictive models. Rational decision making remains the core of this approach with such decisions being based on empirical data gathered from operating systems. Microeconomic simulation models as originally proposed by Orcutt (1961) and more recently developed for vocational education planning by Beaulieu and Erickson (1977) and Morgan and Cohn (1977) are examples of rational-empirical model applications in this category.

The history of planning theory reveals a sensitivity to the major issues of a given period: heavy dependency on rationality, logic, and decision theory up to the 1960s with a shift to greater incorporation of participation; advocacy and decentralization in the latter 1960s and early 1970s (Davidoff, 1966; Friedmann, 1973; Simmons, 1974). Vocational education has traditionally adopted the rational-empirical view of planning with a high degree of centralization and with the primary purpose of allocating resources to competing interests. Beyond state plan preparation and accountability reporting, however, what actual planning does take place is often informal, incremental, and decentralized (Asche, 1985).

Until recent years, most planning literature has focused on "rational" models and reveals four to six major subdivisions of activity. Koontz (1963) listed the following five steps in the rational planning process:

1. the identification or specification of the goals or objectives for planning, the ends to be sought;

2. the determination of planning premises, specification of constraints, and forecasting of relevant exogenous variables;

3. the identification of alternative courses of action which might be undertaken;

4. the evaluation of alternative courses of action through forecasts of consequences and the assignment of relative values to various consequences; and

5. the selection of a course of action through the application of some decision-making rule.

O'Reilly (1975) identified several common steps in the vocational education planning process. First, states collected data about the previous year. Second, the data about the previous year's activities was evaluated in terms of previously established goals and objectives. Third, based upon an estimate of anticipated income, goals were determined for the following year. Fourth, the plan was written. Fifth, a review of the plan was conducted, involving persons and agencies specified by current statutes. These steps are similar to those proposed by Koontz (1963) for the rational approach but with less focus on the conscious identification of objectives for planning and without explicit identification of underlying assumptions and premises.

The more recent views of planning do not present such a clear-cut blueprint. Hudson (1983) listed five approaches to planning: synoptic (rational-comprehensive), incremental, advocacy, radical, and transactive. The latter four approaches have developed since about 1960. None of these approaches seems appropriate for a complete planning system for vocational education, yet each has potential merit for addressing some of the recurring criticisms of planning practices in vocational education. Based on Hudson's (1983) account, a brief review of each approach is presented below.

Synoptic Planning

Hudson stated that the synoptic or rational-comprehensive approach to planning is a dominant tradition and that most other approaches represent modifications or reactions to this approach. He listed four classical elements: (1) goal setting, (2) identification of policy alternatives, (3) evaluation of means against ends, and (4) implementation of decisions. Techniques of planning such as regression, econometric modeling, Markov chains, and simulation may be nested within one or more of the basic elements. Most recent formal efforts in vocational planning appear to model the basic elements of the synoptic approach. The primary focus, however, has been on "empiricising" the middle of

the model—that is, on using program, student, and labor supply and demand data in a forecasting model to improve predictions of needs for expansion or contraction of existing programs and processes. Few recent efforts have seriously incorporated formal planning procedures in the goal setting stage of the model and consideration of policy alternatives has operated informally and within pre-established historical and legislative bounds.

Incremental Planning

Lindblom (1959) has been a chief proponent of the incremental approach to planning, labeling it the "science of muddling through." He stated that policy decisions are better understood and better accomplished using this approach, which uses the "push and tug" of established institutions in the normal bargaining processes. Incrementalists have claimed that synoptic planning is insensitive to existing institutional performance capabilities, is reductionist, fails to appreciate the cognitive limits of decisionmakers who really work by successive approximation, and fails to recognize pluralistic public interests. According to incrementalists, synoptic planning is biased toward central control. Braybrooke and Lindblom (1983) outlined eight characteristics of incremental planning:

1. Choices are made in a given political system, at the margin of the status quo.
2. A restricted variety of policy alternatives is considered, and these alternatives differ only incrementally from existing policy.
3. A restricted number of consequences are considered for any given policy; at any one point the analysis of consequences is quite incomplete.
4. Adjustments are made in the policy objectives in order to conform to given means of policy, implying that ends and means are chosen simultaneously.
5. Problems are reconstructed, or transformed, in the course of exploring relevant data.
6. Analysis and evaluation occur sequentially with the result that policy consists of a long chain of amended choices.
7. Analysis and decision making are remedial; they move away from negatively perceived situations and toward known objectives.
8. Analysis and decision making are socially fragmented; they take place at a very large number of separate points simultaneously. (p. 54)

The incremental approach is probably a fair approximation of the way in which much of the planning in vocational education actually takes place. This approach requires little central control, data collection, and decision making. It recognizes the political nature

of the process and also recognizes that goals, values, and expectations are often the source of conflict. It is remedial in that planning is conducted to "fix problems" or, as stated above, to move away from negatively perceived situations. It allows for bargaining by affected parties and is probably best characterized by Lindblom's "muddling through" description.

Etzioni (1967) proposed an approach called "mixed scanning" which he characterized as neither as utopian as the rationalistic models nor as conservative as Lindblom's incremental model. Etzioni presented the idea that in a society where consensus is low, rationally determined policies of central authorities can only be carried out through the exercise of excessive coercive power. The outcome of such an "overmanaged" system is social alienation and instability. Etzioni's criticism of rationalistic models parallels the problems cited by Friedmann and Hudson (1979) for rational decision theory—namely, the problem of adequate knowledge of variables and relationships; the debate as to whether a community welfare function actually exists; and the problem of the assumption that just because a "scientific" or "rational" decision is made, it will be implemented.

Etzioni (1967) cited two operational problems with the incremental approach. First, decisions by consent among partisans without a society-wide regulatory agency will reflect the interest of some groups to the exclusion of others since power is not evenly distributed. Second, incrementalism focuses on the short term and neglects innovations. Both criticisms reinforce the observation that incrementalism reinforces and maintains the existing condition. Finally, Etzioni criticized the incremental approach for its failure to recognize the importance of large fundamental decisions that fall outside the incremental decision model. This concern parallels the distinction made by Mannheim (1949) between functional and substantial rationality and by Friedmann's (1973) allocative and innovative planning.

Etzioni used this dichotomy of decision types and levels as the basis for his "mixed scanning" approach. In this approach, two or more levels of "scanning" are used to deal with planning problems which inherently vary in level, complexity, and import. The broader scan lacks detail but has the power to detect areas requiring attention. These areas may be addressed through an incremental approach but with the advantage of the broader view of the whole system. The mixed scanning proposal thus appears to be an attempt to

deal simultaneously with the long- and short-term nature of problems, incremental as well as fundamental decisions, the need for centralized consensus building without overt management, and the incorporation of both allocative and innovative planning.

Advocacy Planning

Advocacy planning came about primarily as a reaction to approaches which did not address the unequal distribution of power in society. Theoretically, advocacy planning should produce multiple plans that address the pluralistic needs of groups within the larger society. Within vocational education, the needs of clients from targeted groups or special populations may argue for an advocacy planning approach.

Peattie (1968), however, illustrated some of the problems in implementing this theory. She cited the frequent lack of homogeneity in the needs and interests of supposed subgroups and the potential common interests of diverse groups as examples. In a graphic illustration of her point, she cited the participation of members of the John Birch Society and of Students for a Democratic Society in the same picket lines protesting urban renewal policies in Boston. Advocacy planning, since it is based on an adversarial model, may also be more effective in blocking inequitable policy than in promoting equitable or compensatory policy.

Radical Planning

As in the other proposals for planning reform or modification, advocates of "radical" planning have started from a base of criticism of the rational-comprehensive model. The most common criticisms were that the rational model (1) is elitist in that it sets the planner apart from the world he or she is to plan, (2) is centralizing in that the type of control necessary requires centralized activity, and (3) is change-resistant in that the attempt is to eliminate all but preprogrammed social change (Grabow & Heskin, 1973, p. 108).

Radical planners advocated that "society be reorganized so that the maximum number of decisions possible can be within the reach of as many people as possible" (Grabow & Heskin, 1973, p. 109). The notion of "paradigm shift" as proposed by Kuhn (1962) is viewed as positive and is in the interest of human development and thus should

be facilitated rather than resisted by planners. A third area that is seen as compatible with decentralization and changing world views is advocacy of innovation and experimentation in social organization. This last area is often perceived as threatening in that radical planners do not feel constrained to work within existing structure and organizational patterns. The radical view of planning stresses cooperation and communal decision-making rather than competition. It accuses comprehensive planning of placing too much emphasis on competition and economic growth objectives rather than embracing an ecological ethic or quality of life focus. Planning is seen as more an act of facilitating than predicting, so the planner is viewed as an active change agent rather than an isolated scientist or technician. Primary benefits derive from spontaneity, innovation, and learning from the resulting changes. Progress would occur as a result of learning rather than from prediction and central control.

Transactive Planning

Transactive planning grew out of the turmoil of the 1960s and was in some ways designed to ameliorate problems of social alienation addressed by the mixed-scanning and radical planning approaches. Friedmann (1973) presented an extensive analysis of the conditions in postindustrial society that called for greater communication between planners (technical experts) and clients through a process he called "transactive planning." His rationale was based in two areas of crises: values and knowledge.

The movement from a history of scarcity to an era of abundance has been accompanied by a diffusion or loss of clarity and simplicity of values. The growth of cultural pluralism has made planning more complex in that the determination of a common universal good is often not possible. Earlier systems of planning advocated separation of values from the technology of planning; transactive planning calls for reintegration. Social alienation has led to activism which often blocks implementation of centrally developed plans. Friedmann (1973) cited examples of the blocking of urban renewal plans for several cities as examples of a weakening link between central plans and implementation.

A crisis of "knowing" has resulted from the growing scale and complexity of sociotechnical systems, the accelerated rate of change in social systems and technology, and the growing gap between experienced and observed reality. Individuals and groups

must now depend more upon "processed" (symbolic) knowledge and less on experiential knowledge. However, the growing gap between the technical expert and the client exacerbates the problem of communication.

Friedmann (1973, p. 111) proposed that the solution lies in forging a personal relationship between expert and client through the process of transactive planning. In this interchange, the values of the people affect the planners and planning process, but the expertise of the planners informs the client—a learning process that helps link processed knowledge to action.

To illustrate, one might visualize a dichotomy. At one extreme of this dichotomy, actions are determined through political processes without benefit of scientific technical knowledge. At the other extreme, complete dependence on technical knowledge without the value system of a pluralistic society leads to the exercise of coercive power and an "overmanaged" society (Etzioni, 1967). Transactive planning is proposed to connect the political process with the technology of planning to achieve "social guidance." It should connect those who primarily have processed knowledge with those who operate on experiential knowledge. Friedmann (1973) contends that the transactive style of planning can be applied to both allocative planning (the distribution of limited resources among competing users) and innovative planning (actions that produce structural changes in the guidance system). Transactive planning, at least in theory, offers the potential of addressing the apparent gap in vocational education between federal and state planners and between public school personnel and clients of the educational system.

Allocative Versus Innovative Planning

The guidance of the vocational enterprise might be likened to Mannheim's "social guidance" as described by Friedmann (1973) in that both functional rationality (relating means efficiently to given ends) and substantial rationality (examination of the ends themselves through intelligent insight into the workings of the social system) are required. Often, planning has been defined to include only functional rationality.

A parallel exists in the evaluation literature. Some feel that the only appropriate role of the evaluator is to supply information to decisionmakers. Planners who feel the

planning mission is one of functional rationality can avoid value judgments by simply accepting goals as established through the political process. The work of the planner is thus limited to the allocation role—examining implications of alternative allocative schemes for attaining the given goals. A further restriction is not uncommon. Resources are set by the political process, leaving the planners with the purely functional role of "managing" the allocation to get the best (or at least an acceptable) fit between limited resources and given goals (e.g., efficiency of allocation). Friedmann (1973) labeled such thinking "an exercise in self-delusion" (p. 58). His "allocative" and "innovative" planning functions seem to parallel Mannheim's functional and substantial rationality. The following discussion presents a rationale for the notion that guidance, not just efficiency, of the enterprise is a legitimate and, in fact, necessary function of planning. In other words, the vocational education planning function at this point in time must be expanded to include a greater focus on innovative (substantive) planning.

The sociology of knowledge indicates that the "world view" of any group within a society tends to restrict the ability of that group to functional rationally, thereby preventing long-range planning of a visionary or utopian nature. Mannheim's notion that a group of intelligentsia might lack the encumbrances of a group membership may be more a matter of convenience than of reality. Today's "scholar," operating in the politicized university or state department of education, may lack the intellectual autonomy desired by Mannheim. The challenge to designers of planning systems or models thus becomes one of somehow insuring that innovation is not extinguished in the press for efficiency or political expediency.

Friedmann (1973, p. 17) defined allocative planning as the distribution of limited resources among competing users. State level management of vocational education has evolved toward a restricted form of allocative planning by trying to satisfy the educational establishment throughout the state while also demonstrating compliance with federal and state mandates and constraints. The state establishment consists of various constituencies (parents, vocational teachers and administrators, students, professional associations and unions, business and industry, and general education administrators), each group with its own world view and set of vested interests, operating in a rigid organizational structure.

Various models for planning vocational education within the existing constituent and structural confines have been developed, used, and generally abandoned. In some

cases, valiant original efforts have been modified to provide required state plan "compliance" documents, thereby sacrificing their original comprehensive planning mission. These models have exclusively drawn from the rational-synoptic or incremental traditions and have served the restricted role of allocation. They can and have worked insofar as the planning role has been defined as optimizing—or at least "satisfying" (Simon, 1945)—allocation decisions in a relatively stable environment. They have been inadequate in times of rapid change (new legislation, technological and economic change, educational reform). Even under optimum conditions of stability and funding, the cost effectiveness of increasing conceptual or mathematical sophistication is debatable.

The "fatal flaw" of extant models, however, is not one of efficient allocation. It is the inability to encourage or even tolerate what Mannheim (1949) called substantial rationality or Friedmann's (1973) innovative planning. Present models and practices accept existing structure and constituency. Because they involve a priori historical or physical restrictions (often termed "reality" or "feasibility"), these models tend to perpetuate the existing condition or only move incrementally away from the negative (and seldom toward the positive). The mission is problem solving at the exclusion of opportunity seeking and is oriented toward defense and maintenance instead of offense and change.

Analysis of Planning Approaches for Applicability to Vocational Education

The assessment of the potential of each of the theories and approaches to vocational education planning would be simple if vocational education were a narrowly defined, independent entity. It is, however, a changing and complex network of people and services. It falls under several levels of control and funding and is related to the community and other school and social programs in ways that are highly sensitive to local needs and characteristics. Vocational education does not control the labor market nor does it presently control the pretraining aptitudes or competence of its students. Insofar as federal support is concerned, vocational educators have minimal input in the legislative process that sets its national missions, selects its clientele, and determines the criteria on which it will be evaluated. In addition, vocational legislation has tended to encompass two sometimes conflicting perspectives of the mission of vocational education, an employment-based perspective and a school-based perspective (Thompson, 1973).

An adaptation of an old planning paradox seems appropriate: Where change is rapid and knowledge is minimal, the need for planning is at a maximum but its effectiveness is at a minimum. Where conditions are stable and information is readily available and reliable, planning is maximally effective but not needed! The relative value and feasibility of planning must be viewed for what it is expected to accomplish and thus for how it is defined. If planning is defined only in terms of its ability to predict the future, its ability to exercise control or to move a system toward a preconceived desirable configuration—the paradox seems to hold. Planning's potential to maintain the status quo in the face of rapid change or to protect existing power structures is suspect. Much of the present loss of confidence in the value of planning may be attributed to its inability to do the impossible—isolate a subsystem such as vocational education from the larger educational and societal systems of which it is a part.

A critique of planning approaches must therefore not be based on an appraisal of their value in maintaining, protecting, or even expanding vocational education. It should not start with the assumption that the future is one in which vocational education stays the same while everything about it changes.

Hudson (1983, pp. 29-34) provided an analysis that used six basic criteria in assessing the adequacy of several basic planning theories. The criteria included (1) the extent to which the public interest is incorporated, (2) the attention given to the human dimension of policy impact, (3) the feasibility of using the particular approach, (4) the action-generating potential, (5) the extent to which a particular theory addresses substantive social theory, and (6) the extent to which theory is self-reflective. This review used Hudson's first five criteria in a somewhat modified form and has added several others which the review reveals may be critical to vocational education. The revised set of criteria are defined as follows:

1. public interest—extent to which an approach incorporates the public/client interest

2. human impact—extent to which an approach takes into account the probable human impact of actions or policies

3. feasibility of application—the relative probability of being able to use a given approach in the present context

4. implementation—extent to which an approach facilitates implementation of plans or policies developed

5. substantive theory—extent to which an approach incorporates substantive theories of social and organizational change

6. mission and goal setting/clarification—extent to which an approach assists in definition or redefinition of vocational education missions or goals

7. leadership involvement and development—extent to which an approach facilitates the utilization of expertise and development of new leaders

8. local and regional variability—extent to which an approach can accommodate and encourage local and regional variability

9. experimentation and innovation—extent to which an approach facilitates experimentation and innovation

10. generation and use of objective data—extent to which an approach generates and uses objective data in the decision process

Figure 1 is a summary assessment of the relative strength of each of the five basic planning approaches for each of two basic planning functions in vocational education. Although based on Hudson's (1983, p. 31) original concept, the ratings have been revised to reflect subjective judgments based on application of the approaches specifically to vocational education planning. Hudson's original conceptualization has also been modified by addition of a third dimension (innovative and allocative planning) and by criteria six through ten. It is doubtful that a high degree of agreement on the judgments reflected in the table could be achieved among vocational education planners. Its primary purpose is to assist planners in their own assessment of the relative strengths and weaknesses of the various approaches under the varying conditions of the states.

Figure 1: Assessment of the Five Planning Approaches for the Innovation (Substantive) and Allocative Functions in Vocational Education Planning

Planning Approach	Function	Public Interest	Human Impact	Feasibility of Application	Implementation	Substantive Theory	Mission and Goal Setting/ Clarification	Leadership Involvement and Development	Local and Regional Variability	Experimentation and Innovation	Generation and Use of Objective Data
Synoptic (Rational-Comprehensive)	Innovative	–	–	o	–	–	–	o	–	–	+
	Allocative	–	–	+	+	–	o	o	o	–	+
Incremental	Innovative	o	–	+	+	–	o	o	o	–	+
	Allocative	o	–	+	+	–	o	o	o	–	+
Transactive	Innovative	+	+	o	+	o	+	+	+	+	+
	Allocative	+	+	o	+	o	+	+	+	+	+
Advocacy	Innovative	+	o	+	–	–	+	o	o	o	–
	Allocative	+	o	+	–	–	+	o	o	o	–
Radical	Innovative	+	+	–	–	+	+	o	o	o	–
	Allocative	+	+	–	–	+	+	o	o	o	–

Key: – Indicates Weakness
o Indicates Neutral
+ Indicates Strength

Summary

Vocational education's "world view" of planning has been historically restricted so that it might be characterized as rational-empirical, centralized, and allocative. It has been pointed out that such an approach is maximally effective with political and economic stability, accurate data, and mission consensus. It was also observed that such a view restricts the group to functional rationality, thereby preventing long-range planning of a visionary or utopian nature.

The literature regarding planning theory provides several approaches to planning that attempt to address the limitations of the "rational-comprehensive" approach under conditions more descriptive of the "real world" in which vocational education operates. The literature on vocational education planning, however, does not indicate any wide-scale experimentation or adoption of such approaches.

If the linking of planning and evaluation were viewed largely as an exercise in joining two separate functions or agencies within the bureaucratic organizational structure, the present modal approach to planning might not be an encumbrance. If, however, linking is viewed as a conceptual as well as structural joining, resulting in mutually supportive activities rather than distinct functions, aspects of the incremental, advocacy, radical, and particularly the transactive approaches seem relevant. This view may be held by those involved in the informal planning and evaluation activities that take place, but the view is not treated explicitly in the formal vocational education literature.

EVALUATION

Evaluation or, more specifically, program evaluation can be understood simply as the use of social science methods to monitor and assess the operation of public programs. The basic function of program evaluation is to determine whether a specific program is achieving its objectives and, if it is not achieving its objectives, to identify the reasons for failure. However, program evaluation should not be constricted by this conceptualization because evaluation may begin before a program or policy is implemented or because it may touch on issues that were not envisioned at the time the goals of the program were formulated. As Chelimsky (1983) observed, program evaluation seeks to improve the

basis for policy making rather than to redirect policy. More often than not, program evaluations supply the proof of legitimacy, effectiveness, and efficiency necessary to justify continued program support.

The literature on program evaluation can be broken down into four major discussions: (1) the scope and nature of evaluation (goal directed or summative versus goal rationalizing or formative), (2) the method of evaluation (social scientific versus naturalistic), (3) the politics of evaluation (status quo versus social critique), and (4) the utilization of evaluation (formal versus unobtrusive).

The Scope of Evaluation

In an attempt to map the field of evaluation, Palumbo and Nachmias (1983) asked whether there is an ideal paradigm. Their answer was that there is no ideal paradigm and that "the dominant model is both methodologically and institutionally inadequate" (p. 78). They attributed this inadequacy to the unrealistic assumptions of the dominant synoptic model. For example, the goal-directed paradigm depends on the presence of an ideal program manager committed to achieving program goals. Yet, a host of circumstances serve to undermine this idealized role. Making use of evaluation results that either are inconclusive or disagree with immediate political objectives and ideological dispositions frustrates and delimits even the most committed decisionmaker.

From a historical point of view, the evolution of evaluation research spans a variety of sponsors, purposes, and methods that characterizes each evaluation paradigm. Daniels and Wirth (1983) characterized this evolution in terms of what they refer to as the locus, focus, and modus of each evaluation paradigm. The first paradigm, "evaluation research as efficiency and the New Deal," was identified as being prevalent between 1910 and the World War II. The locus of this paradigm was industrial research, inspired primarily by Frederic Taylor and his time-motion studies and by governmental agencies responsible for carrying out New Deal programs. The focus was also twofold: efficiency in productivity and evaluation of social change. The modus for these research efforts hinged on early applications of experimental, applied social research.

After World War II and up to about 1963, the prevailing paradigm was "evaluation research as field research." As the title suggests, field research in sociology and psychology and even in the armed services predominated. Social-psychological and behavioral-attitudinal change studies became the focus of evaluation research and social programs. Experimental designs left the laboratory and were introduced in field settings primarily through the work of Kurt Lewin and his use of both qualitative and quantitative methods.

The third paradigm, "evaluation as social experimentation," emerged with the introduction of Lyndon Johnson's Great Society and social action programs. With its basis in social action programs, the focus of evaluation was on public policy, the "turbulent setting" of social programs, and the problem of evaluation utilization within the policy arena. The emphasis was social experimentation, spurred by the classic works of Campbell and Stanley (1963).

Finally, the fourth and current paradigm, "evaluation research as a policymaking component," identified by Daniel and Wirth emanated from its predecessor. The locus of evaluation moved to all levels of federal and state governmental activity. The focus found its form in the congressional power of oversight. Subsequently, federal legislation translated this oversight into a centralized, rationalized approach to policymaking. The modus of this paradigm is characterized by a myriad of methods and techniques, not to mention a fine-tuning of experimental and quasi-experimental techniques.

Given this historical perspective, the evaluation strategy is considered to vary according to time and organizational context. For example, if the focus is on past decisions, then impact or output evaluation is followed. This is often designated as summative evaluation. If, on the other hand, the focus is on present decision making, then process or system evaluation and comparative case analysis are followed. This is often designated as formative evaluation. Formative evaluations provide the information necessary to design and/or modify service delivery systems while they are in operation.

Methods of Evaluation

The interaction between paradigms and strategies gives rise to different types of evaluation. Perkins (1977) identified six basic types of evaluations:

1. *Strategic evaluations* are concerned with underlying causes of social problems, focusing on "implicit theories" as a basis for broad ameliorative programs.

2. *Interaction effect assessments* attempt to establish the relationship between program intervention and outcomes or, in some cases, the processes involved in producing those outcomes.

3. *Compliance evaluations* examine the consistency of program objectives with broader legislative aims and attempt to ensure that public funds are allocated according to policy guidelines.

4. *Program design evaluations* test the measurability of program assumptions, the overall logic of the program approach, and the assignment of responsibility and accountability for program results.

5. *Management evaluations* focus on the efficiency and effectiveness with which managers deploy available resources to achieve program objectives.

6. *Program impact evaluations* deal with the program delivery system and the relation between program results and the legislated goals and program objectives.

The last type, program impact evaluation, is the dominant mode of evaluation in practice. Morell (1979) elaborated further on this type, breaking it down into three categories: client-type comparison evaluation, follow-up evaluations, and modality test evaluation. Client-type comparison evaluations are concerned with the relative effect of a program on various subpopulations or between the characteristics of those who receive treatment versus those who do not. The focus of interest is on sociopsychological factors that differentiate one group of people from another. Follow-up evaluations are directed at people who have left the immediate focus of "treatment" that they have received. The

purpose is to see how people fare once the immediate effects of the program or treatment have been removed. Modality test evaluations are used to estimate the relative effects of some method (or methods) which cause an identifiable, desired change.

Finally, the conduct of research in evaluation as well as the validity of its findings also reflect contending approaches. The central issue is the debate over rigor versus relevance, more popularly phrased as quantitative versus qualitative research. The rigor side of the argument asserts strict adherence to the methods of falsification testing, verification, and replicability for a particular evaluation study to be scientific. The relevance side, on the other hand, stresses the importance of intersubjectivity, participant observation, and triangulation for evaluation research to be naturalistic.

Recognizing this variety in the evaluation enterprise helps one to appreciate the strategic use of evaluation. Thus, rather than being wedded to a single view of evaluation (i.e., summative or formative) one can begin to raise questions about the other potentials of evaluation efforts (i.e., linkages with planning). This can be accomplished by conceiving of evaluation as a built-in feedback mechanism in the planning process. Obviously this is more easily said than done. The doing requires recognition of the political nature of evaluation and, in particular, of the problematic nature of evaluation utilization in program decision making.

Politics and Evaluation

A rich literature has emerged surrounding the debate over the nature of politics in evaluation. The primary contention revolves around the question of whether evaluation itself is a political act or a tool of politics. Those who hold that evaluation is a tool of politics argue that evaluations become part of the political decision-making process surrounding the program being evaluated (Palumbo, 1987, p. 12). Weiss and Bucuvalas (1977, pp. 525-533) observed that, in evaluation, political considerations intrude in three major ways. The first intrusion concerns the origins of evaluation—where the specification of evaluation purpose and evaluation criterion emerges from the decisions reached through the political process. The second concerns the role of evaluations in decision making—where evaluation either mobilizes program support or uncovers the need for program modification. The third way concerns the ideological biases built into the parameters of

evaluation—where the expertise of the evaluator confers focus on some variables while ignoring others. The message being transmitted is that those which are ignored are relatively unimportant.

Those who hold evaluation as a political act focus their attention on the role of the evaluator. Barry and Rae (1975) observed that "evaluating is assigning value to things roughly speaking, determining whether they are good or bad. We shall take political evaluation to consist in the first instance in assigning value to alternative policies, laws, or general decisions binding on a collectivity" (p. 340). Assigning values to alternative means also involves a judgment about the goals themselves. Mettsner (1972, p. 859) argued that evaluators must focus on and explicitly incorporate political dimensions in their studies in order to carve out a role in the policy decision process. Playing this political role is neither simple nor straightforward. As Palumbo (1987) noted, "The political dilemma facing evaluators is to steer a course between recognizing the political reality of evaluation and retaining the symbolism of neutrality" (p. 20). Patton (1987) has been more emphatic about the role evaluators should play. He wrote, "The issue for evaluators is not whether evaluations are political, since they cannot be otherwise. The issue is how explicitly the evaluator deals with, facilitates and negotiates political considerations in the context of concerns for use, practicalities, rigor, integrity, accuracy, fairness and credibility" (p. 143).

Evaluation Utilization

While the literature diverges regarding the political nature of evaluation, there is one issue over which there is agreement. This has to do with the fact that evaluation utilization is problematic. Nachmias (1980) noted that "the criterion for assessing utilization is built into the definition of evaluation: Evaluation research is meant for immediate direct use in improving policy decision" (p. 1165). He further noted that "the very few published systematic empirical studies of evaluation utilization tend to support the proposition that utilization—in the sense of influencing program decision making and management—does occur, but not in the manner proposed in the early evaluation literature" (p. 1166). Such experiences tend to lend a rather amorphous or symbolic perspective to evaluation rather than to support the view of evaluation as a substantive or direct endeavor (Weiss, 1988).

Various classifications for describing the variety of uses that evaluation research serve have been forwarded. Three broad categories of factors that influence utilization can be identified: (1) human factors (attitude, commitment, expertise, organizational position), (2) context factors (task environment, fiscal climate), and (3) evaluation factors (evaluation procedure, quality of information). Most classifications, however, focus on the types of utilization rather than the influences on utilization.

Smith (1988) posed a synthesis called "the many faces of utilization," which classified utilization of evaluation according to four dimensions: (1) directly observable versus perceptual, (2) process versus results, (3) immediate versus long term, and (4) partial/incremental versus holistic. Morell (1979) extended the variety of uses further by identifying four different uses—realistic expectations, improved service, long-range planning, and political utility—by mode of program evaluation:

> Although no categorizations will be sharp and clear, four basic uses can be discerned: as a tool for setting realistic expectations for a program or treatment; as a method of helping organizations to improve the quality of service which they deliver; as a guide for long-range planning; and as a political tool in the sociopolitical decision-making process. The evaluation design concerns which an evaluator must consider will differ depending on which aspect of usefulness is to be maximized. Further, the type of evaluation which is to be conducted (client comparison, follow-up, modality test) will also influence strategies for increasing any given aspect of usefulness. (p. 90)

A succinct, graphical view of Morell's description is presented in Table 4.1 of his book (Morell, 1979, p. 91). A brief statement describing the interaction between each use and each type of evaluation is provided in the table to assist the reader in understanding Morell's presentation.

In the context of vocational education, Strickland and Asche (1987, p. 17) synthesized the literature into three major categories: instrumental—direct and documented use in decision making; conceptual—influencing a policymaker's thinking about an issue without documented evidence of direct use; and persuasive—using evaluation evidence to convince others or to defend a position from attack (Rich, 1977; Boruch & Cordray, 1980; Franchak, 1981; Leviton & Hughes, 1981). According to Patton, the primary weakness of such a synthesis is that the factors are undifferentiated in importance. Thus, no hierarchy is indicated that places more importance on certain factors as necessary and/or on sufficient conditions for evaluation utilization (Patton, 1982, p. 113).

Patton (1986) laid out such a hierarchy—a "three rung" hierarchy. The bottom rung involves improving programs by increasing the quality of decisions made. The middle rung consists of evaluators becoming problemsolvers, interacting with the intended user of the evaluation and furnishing data and information about programs that help reduce uncertainty in decision making (context factor). The top rung consists of the personal and group commitment to evaluation and the information it generates. It represents the human factor: leadership, interest, enthusiasm, determination, commitment, assertiveness, and caring of specific, individual people.

Smith (1988) focused on the middle rung in his delineation of evaluator actions. He presented fifteen facilitating actions, highlights of which are listed below:

1. Consider utilization at every evaluation decision point.
2. Answer the questions that are asked. . . . Credibility involves . . . responsiveness.
3. Frame findings in terms of the intended users.
4. Focus recommendations on incremental rather than global changes.
5. State recommendations as goals rather than delineating specific courses of action.
6. State recommendations in prescriptive terms. . . . What [do] findings signify for future programming actions?
7. Make sure there is an obvious nexus between the recommendations.
8. Avoid . . . calling into question the organization's beliefs and value system.
9. Adhere to rigorous methodological standards of practice.
10. Use a combination of approaches and methods . . . so that the strengths of one can mitigate the weaknesses of another.
11. [Tie] presentations of findings to the decisions to be affected.
12. Make findings clear, useful, and effectively available.
13. Rediscover the anecdote. . . . [This is] effective when used in conjunction with the more generalizable data.
14. Reduce political barriers. . . . Become thoroughly familiar with the political process. . . . Be flexible and adaptable. . . . Compromise is the key to achievement.
15. Couch findings within the context of other work done in the area. . . . [This] adds great strength to the knowledge base when findings are consistent across different studies. (p. 13)

Despite Patton's (1987) advocacy perspective, the dominant view of evaluation contends that the political climate (context factors) places constraints on the kinds of policy changes that will be made, the rate at which these changes will be made, and the cost of the changes. In turn, these three factors define what is to be considered utilization and how evaluation is to be utilized. Weiss (1988), for example, pointed to the varied ways in

which evaluation results influence programming even when program decisionmakers do not implement results immediately and directly.

In contrast to Patton (1988), Weiss (1988) was not so optimistic about the professional role of the evaluator. She wrote: "To ask program managers and planners to embrace evaluation findings fully is to ask them to bracket their years of experience and direct immersion in the daily world of the program, and in effect to abdicate their responsibility in favor of an evaluator who inevitably has only a partial view of their dilemmas" (p. 17). As Nachmias (1980) argued, "From the point of view of policymakers, evaluation is research that can help them to carry out their roles and achieve goals *they* (not the evaluators) consider important" (p. 1167). In this process, evaluation information obviously competes with other policy factors. The chances of evaluation utilization under such circumstances increase when evaluation findings are reinforced by other policy factors. Seen from this perspective, evaluation utilization can occur throughout the policy cycle (DeLeon, 1983). Extending the utilization concept throughout the policy cycle does not imply that utilization is random or accidental. Considering evaluation as a political enterprise conducted in a hierarchical and complex policy arena helps to locate the possible pattern of utilization. For example, Nachmias (1980) noted, "The higher the likelihood for conflict and the more fragmented the policy formation stage, the greater the chances for utilization to occur in the implementation stage. In such cases, utilization would be unobtrusive and carried out by program personnel rather than program formulators" (p. 1168).

Focusing specifically on administrative control, Maynard-Moody (1983) delineated a pattern of evaluation utilization. This pattern identified a dominant coalition as having significant influence over an evaluation process that focused heavily on accountability. The emphasis on goals circumvented organizational uncertainties that reinforced stress on assessment criteria. In short, a "closed loop" pattern of utilization was established which stressed accountability at the expense of organizational capacity. Evaluation in this sense would be enhanced through the recognition that "evaluations are not organizationally neutral" (p. 382).

A final pattern of evaluation utilization is to conceive it in terms of its sensitivity to goal evolution (Nachmias, 1980; Daniels & Wirth, 1983; DeLeon 1983). For example, Cingranelli, Hofferbert, and Ziegenhagen (1980) noted that "evaluators cannot force

agreement regarding program goals. Neither can they stop old goals from changing or new ones from coming into existence, but they can recognize the likelihood that goals will evolve. It is the evaluators' responsibility to see that a wide range of goals are included in the assessment of organizational performance" (p. 1230). Similar observations pertinent to the implementation process in general and the educational context specifically were offered by Light (1980), Pressman and Wildavsky (1979), and Browne and Wildavsky (1987). Their research illustrated that program objectives change and evolve as they are being implemented.

Not an antithesis of efficiency, the goal evolution perspective's inclusion in utilization themes extends the measurement of goals into the realm of unanticipated or unintended positive and negative impacts. The importance of the goal evolution perspective to assessing evaluation utilization is also stressed in terms of increasing the learning capacity of organizations. Wildavsky's (1979) main line of argument was that organizations fail to learn from their past mistakes. Learning from mistakes can thus be considered another pattern of evaluation utilization. The importance of learning becomes an imperative in the context of interagency or intergovernmental programs. For example, Rosenthal (1984) pointed out,

> Perhaps the most realistic and valuable metaphor for the evaluation of intergovernmental programs is that this activity itself became part of a broader societal "learning system," rather than a one-shot, clear-cut assessment of success or failure. If this metaphor of learning is appropriate, and if key public officials can be convinced to take it seriously, then program evaluation can become a constructive long-term catalyst for change. (p. 475)

The evaluation enterprise in vocational education is centered mostly around outcome evaluation. Outcome evaluations are conducted using follow-up studies or by comparing specific samples against indicators developed through national surveys. This puts a heavy emphasis on indicator development, data collection, and trend analysis. The *Education Amendments of 1976* (U.S. 94th Congress, 1976) better integrated these three processes; yet the evaluation enterprise, as Wentling (1980) noted, is fragmented and lacking an institutional anchor. For practical purposes, the targets specified in state plans set the parameters of evaluation and also determined what "successful" utilization would be. Strickland and Asche (1987) defined this pattern as "an academic or compliance exercise" (p. 13) that has little effect other than raising the budget.

Apart from outcome evolution, Wentling (1980) identified four general concepts for developing vocational education evaluation:

> 1. Program evaluation is a process rather than a procedure. . . . Evaluation is most useful when it is treated as a process—a way of decision making—and when it is applied as such.
> 2. Program evaluation is more than examining the achievement of objectives. Assessment of the extent to which instructional programs attain their objectives is not the only dimension of program evaluation. The assessment of objectives as they relate to the needs of all those involved is of primary importance.
> 3. Program evaluation is more than instructional evaluation. Instructional evaluation should determine how a career or program satisfies the specific needs of the learners; program evaluation is more apt to concentrate on how the total program satisfies the occupational needs of the community or the training requirements of the corporate organization.
> 4. Program evaluation is more than evaluating the results of a program. Product evaluation involves judging training outcomes and the costs incurred for a given program offering, relating these outcomes to, prespecified objectives and considering both positive and negative monitoring an instructor's performance, weighing the use of laboratory materials, or assessing the learning experiences found in the training or instructional setting. (pp. 14-16)

Political context, administrative context, and goal evolution—along with the traditional emphasis on evaluator professionalism—all point to the issue of organizational learning, which needs to be institutionalized through evaluation designs. On this point Schneider (1986) wrote, "Evaluation needs to be viewed as part of an information-producing system that feeds into a cyclical policy-making process" (p. 356).

Learning becomes critical because as Pfeffer and Salancik (1978) argued, "Evaluation defines a set of expectations and encourages conformity to those expectations" (p. 79). This pressure to conform can be resisted when evaluation is considered as the learning mechanism rather than as a verifying mechanism of the planning process, when evaluation is conceived as a craft rather than as an applied technology.

Summary

In this section, the scope and methodology of evaluation have been shown to evolve gradually but primarily in response to evaluation's political or organizational context. As the forms of evaluation emerged, evaluation's strategic uses became apparent,

but its implementation or utilization has been subject to institutional or political context as well. Consequently, evaluation utilization has become a critical area of discussion. The primary utilization of evaluation will be realized, however, through its capacity to institutionalize organizational learning. Changing the thinking and behavior of organizations can bring about long-term solutions (National Governors' Association, 1991).

Hence, our discussion so far has led to the actuality and desirability of the planning-evaluation linkage—brought forth by strategic planning on one hand and evaluation utilization on the other. To understand this linkage as an integrative process as well as a craft activity calls for a shift of metaphor—a shift away from considering planning and evaluation as separate proclivities and toward viewing them as aspects of the same phenomenon.

LINKING PLANNING AND EVALUATION

The need for linkage between planning and evaluation is a major theme in the literature. Discussion about whether such linkage actually exists and about how linkage can be brought about is sparse and scattered. For example, Wentling (1980) wrote, "Integration of evaluation activities such as staff evaluation, resource evaluation, and student interest surveys (to name but a few) should facilitate the planning of new programs or the planning of changes in existing ones. Seldom, however, is any kind of evaluation incorporated in the formulation of program or institutional plans" (p. 24).

Conceptual Frames of Reference

To assess the existence of planning and evaluation linkage (or to forge a linkage if one does not exist) necessitates a frame of reference that treats planning and evaluation *not* as mutually exclusive processes but as a single process. Frames of reference are important in three ways: (1) they give focus on strategic issues, (2) they allow identification of instruments, and (3) they provide knowledge of consequences (House, 1983). House pointed out that

> the framing of the social problem depends on the metaphors underlying the stories, and how the problems are framed is critical to the solutions that emerge. For example, a pervasive description of the social services is that they are "fragmented" and the implicit solution to this problem is that they be "coordinated." Services seen as "fragmented" could also be seen more benignly as "autonomous." Therefore, the underlying metaphor gives shape and direction to the problem solution. (p. 8)

There is an immense conceptual and practical space within which one can frame the linkages between planning and evaluation. For example, one can frame them as "the linkage between knowledge and organized action" (Millikan, 1959; Friedmann & Hudson, 1974). This same framing has been variously noted as "from idea to action" (Alexander, 1985) and "linking data with action" (Alexander, 1985; Roberts-Gray, Buller, & Sparkman, 1987). Alexander wrote,

> This conceptualization of the policy implementation processes views the transformation of intent into action as a continuous interactive process. The process begins with the first stimulus, which directs attention to a problem, goal, or issue. After this stimulus, possible—but not necessary—stages linking intention to action are as follows: political mobilization and the development of policy, its elaboration in programs (expressed in legislation, regulations, plans, and projects), and their implementation. (pp. 411-412)

Evaluation may play a role in each of the stages outlined by Alexander, particularly in the identification and definition of the problem to which policy development and implementation are directed. As pointed out in the earlier concept paper developed by this project, the underlying frame of reference plays an active role in the selective identification and interpretation of problems (Asche et al., 1992).

Another route to linkage in the implementation process was suggested by Roberts-Gray et al. (1987): "Thinking at the beginning about recommendations that may be made at the close of the evaluation . . . gives evaluator and program staff a better understanding of each other's positions and helps both to see more clearly what needs to be measured and why" (p. 681).

The conceptualization of linkage may thus be conceived primarily in the context of policy analysis and policy implementation. There is a convergent trend in the planning literature where planning contributes to policy analysis (Alterman & MacRae, 1983). Similarly, convergence is found in the evaluation literature where evaluation contributes to policy implementation.

It is the policy process that makes the linkage real and possible, but the linkage between planning and evaluation is not a direct one. Three streams of literature provide the basis for understanding linkage. Two streams have been previously discussed. From the planning side, there is the strategic planning literature; from the evaluation side, there is the evaluation utilization literature.

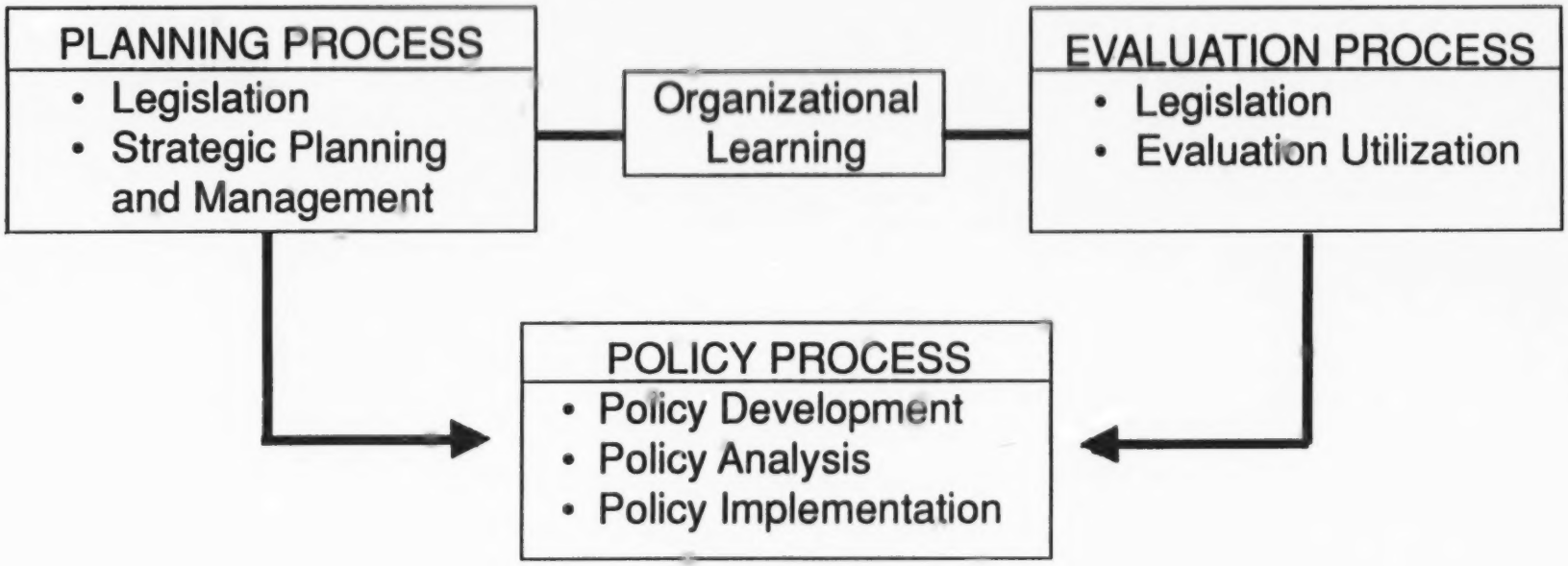
Within the administration and policy literature, a third stream deals with the organizational learning. A fundamental problem of organization action has been the failure to learn from mistakes. Writers such as Crozier (1964), Argyris and Schon (1974), and Wildavsky (1979) have distinguished organizational learning from individual members' learning. Hedberg (1981) stated,

> Although organizational learning occurs through individuals, it would be a mistake to conclude that organizational learning is nothing but the cumulative result of their member's learning. Organizations do not have brains, but they have cognitive systems and memories. As individuals develop their personalities, personal habits, and beliefs over time, organizations develop world views and ideologies. Members come and go, and leadership changes, but organizations' memories preserve certain behaviors, mental maps, norms and values over time. (p. 6)

Organizational learning is a concept that goes beyond the simple formal history of an organization. From this perspective, organizational learning can be understood as the process of improving actions through better knowledge by identifying and correcting errors. Learning, then, is qualitatively different from adaptation, which is often considered as strategic action. Hedberg (1981) pointed out that the former involves the understanding of reasons beyond the immediate event, the latter simply involves defensive adjustment. This perspective is particularly relevant considering the earlier discussion regarding a perceived lack of strategic action by vocational education.

Planning and evaluation are cognitive mechanisms involved in organizational learning. Planning gives an organization the foresight to act, while evaluation gives it the knowledge to identify the errors in planning. For organizational learning to occur, planning and evaluation activities must be linked. The looser the link, the more difficult it is for the organization to learn; inaction or ineffective action is the probable result. Figure 2 represents graphically these converging streams in the planning, evaluation, and policy literature.

Figure 2: Revelant Literature Streams



Planning as an Aid to Evaluation

Poister (1986) addressed how the planning process can aid evaluation:

> Planning is the function that can make use of evaluative information to develop improvements in such factors as program targeting, objectives-resource mix, intervention strategy, program configuration, and service delivery arrangements. Solutions for poorly performing programs are not necessarily apparent from the results of an evaluation, especially when those responsible for program planning do not play roles in formulating evaluation designs in the first place. (p. 180)

Another form of linkage was discussed by Volkema (1983), who identified two types of problem formulation heuristics—problem reduction and problem expansion. Although problem reduction is the dominant heuristic, experimental results suggest that problem expansion has a positive effect on idea generation, particularly for individuals working on problems that fall outside their area of expertise.

In the context of vocational education, Moss (1983) stated that the "professional challenge is to make the planning process efficient and as rational as is consistent with our democratic values. . . . There are, of course, a number of technical planning problems that remain to be solved, but more importantly there are critical conceptual issues that demand immediate attention" (p. 13). The earlier review of planning theory and practice in vocational education indicates a general lack of emphasis by states on strategic planning. So far as the present discussion suggests, institutionalizing strategic planning and strategic management capacity is one conceptual issue that demands immediate attention.

Strategic planning capacity can be institutionalized through matrix decision making. Walter and Choate (1984) delineated this as the determination of priorities by contrasting "the ability to influence" with "the need for action" (p. 30). Asche et al. (1992) proposed a four-way typology of "Source x Nature x Urgency x Feasibility" as a systematic way of examining the linking of planning and evaluation. This approach was also suggested as a way to examine linking's ultimate effectiveness by looking for disproportionate allocation of effort or resources to problems deriving from one or more of the dimensions.

Strategic planning capacity can be diagnosed by analyzing relevant strategic dimensions. Wechsler and Backoff (1986) identified eight such indicators for these dimensions:

1. Strength of external influence
2. Locus of strategic control
3. Impetus for strategic action
4. Strategic orientation
5. Orientation toward change
6. Scope of strategic management
7. Strategic management activity level
8. Direction of strategic movement

Evaluation as an Aid to Planning

From the point of view of how the evaluation process can aid planning, Hudson (1983) stated, "Evaluation comprises a greater part of the total planning effort. . . . The evaluation of particular projects and policies can extend to an evaluation of ends (goal setting) as well as means; it can suggest new lines of action (identification of alternatives)" (p. 39). Hudson conceived of evaluation, at a minimum, as a subcomponent of planning and, ideally as a model of planning. Viewing it as a model reveals certain advantages over traditional planning theories:

> First, it [evaluation] begins with specific problems, solutions, and social settings, whereas other forms of planning often begin with a nebulous attempt at goal setting divorced from any consideration of realistic options.
>
> Second, [evaluation works with the past and focuses upon the future]. Planners, on the other hand, tend to make proposals without concern for the lessons of the past.
>
> Third, evaluation is something in which everyone can become involved on some level. It is inherently democratic. . . . In contrast, planning connotes a more refined expertise—a set of procedures involving specialized analysis of data, a creative vision in forecasting the future and designing ways to deal with it, a forum of high-level deliberations with access to a global overview of ends and means. Evaluation can provide a stronger thread of continuity between the intentions embodied in plans and the way ordinary people experience their real impacts.
>
> Fourth, evaluation is characterized by advocacy positions to argue both sides of the issue. . . . Evaluation confronts a specific reality, from which people emerge able to speak of their experience, and it can propose rival hypotheses to focus investigation on critical issues. In contrast, planning tends to start with more abstract realities: goal statements, problem definitions, a preconceived menu of solutions.

> Finally, because evaluation is focused on particular options in particular settings, it can be efficient in the acquisition and interpretation of data needed for its purposes. It uses data on a need-to-know bases. In contrast, planning efforts tend to start with a general compilation of all-purpose data, without a clear initial idea of which information will in the end made a real difference in choosing between one or another course of action. (p. 40)

Patton (1988) emphasized the integration of evaluation into program delivery as a strategy for both increased utility and increased cost effectiveness. In his words, "With this approach, evaluation is not an 'add-on' that may be dispensed with as a cost-cutting measure; nor is it a luxury to be indulged in with extra dollars. . . . The principle then, is to work with program staff in articulating a theory of action or program delivery model that logically and meaningfully includes data collection points that serve, first and foremost, program needs but also evaluation information needs" (p. 89).

The key contribution of evaluation to planning may lie in focusing policy questions and giving them an empirical anchor into the organizational realities. Chelimsky (1984) provided a framework that linked the various types of program evaluation and the needs of program managers and policymakers for information. The links are forged by evaluative information needs.

In the context of vocational education, Wentling (1980) presented a similar model. He wrote, "Conclusions drawn from evaluative findings can be utilized in many ways" (p. 396). Wentling suggested the Context-Input-Process-Product (CIPP) evaluation model developed by Stufflebeam as a way to link planning and evaluation. The interdependent information generated in the four types of evaluation (context, input, process, product) feeds into the planning process and supports a multiple use perspective. The planning process, however, is not the front-end blueprint for implementation action as verified through summative evaluation but an emergent consensus over operational directions propelled by formative evaluation.

The Emerging Potential for Indicators

While authors have addressed the potential contributions of evaluation to planning and of planning to evaluation, few have addressed linkage directly. However, a recent movement, termed "quality indicators," may provide the mechanism by which these contributions may be institutionalized. Oakes (1986b) wrote,

> The purposes of indicator systems are to measure the health and effectiveness of the education system and help policymakers make better decisions. These purposes imply that we select a set of indicators based on an understanding of which components of the educational system are critical to its health and which features signal important changes in its condition. We should also know how the various components of the statistics can be used to diagnose current and future conditions. (p. 8)

Indicators become particularly significant when the policies contain multiple and conflicting objectives. Indicators are the instruments by which policy is affected. In practical terms, administrative capacity and convenience dictate the use of planning and evaluation—not the expertise of the planners or the professionalism of evaluations. Timar and Kirp (1987) noted that "schools cannot deliver what they do not control. And since they lack control over the most important factors influencing educational outcomes, they focus instead or what they can control" (p. 318). Selection of indicators then becomes critical for the linkage of planning and evaluation.

Morell (1979) elaborated how the choice of indicators affects the evaluation enterprise. He emphasized that the types of indicators desired vary by level and purpose (e.g., classroom teachers versus policymakers). Any given level may share some of the concerns of other levels, but there are definite shifts in emphasis. Such shifts effect evaluation and, in turn, its usefulness in long-range planning.

Indicators may serve to circumvent appropriate planning and evaluation procedures. Hedrick (1980), for example, pointed out, "If placements become a more central indicator for accountability, program administrators at the local level will quickly realize that it is to their advantage to run high throughput, short term placement oriented programs for the less disadvantaged" (p. 63). In vocational education, for example, Oakes (1986b) pointed out that indicators are driven by noneducational factors—factors external to the vocational education enterprise itself. Oakes (1986a) summed up the state of vocational education in the following terms: "Vocational programs seem to exist in an interesting set of

circumstances. Economic and social claims that appear to be largely unsubstantiated drive policy, program design, and evaluation. Educational claims that have been attributed to participation in vocational programs appear to be largely ignored in policy, practice, and research" (p. 39). Asche (1989) stated,

> To the extent that we are not clear as to what vocational education should accomplish, we are left in a position of having externally imposed indicators and performance standards dictate vocational education's purposes and activities. The indicators selected for vocational education must be those which are linked to attainable and worthwhile goals or we will be in a position of using our resources to accomplish someone else's agenda. (p. 5)

Constraints on Linkage

The constraints on effective linkage are more than conceptual. Constraints exist in the administrative capacity through which planning and evaluation take place. For example, if budget allocations are made to reinforce the optimality of the planning and evaluation process, then budgetary time tables must allow informed policy debate. If evaluation research is to provide feedback for policy planning in a timely fashion, then its timing is critical for program selection, survey design, and utilization planning.

One way in which linkages can be effective is by the expertise of what Oakes (1986a) termed a "critical methodology." She stated,

> Critical methodology requires collaboration. Subjection of knowledge to continuous critical reflection demands that participants attend to how educational structures, content, processes, values, and beliefs—including the inquiry process itself—are linked to the social and political forces in the setting and to the large social, political, and economic context in which it is situated. (pp. 44-45)

For vocational education, Strickland and Asche (1987) identified three organizational factors that may serve to constrain effective utilization of evaluation. The three factors are the regulative nature of multilevel funding, the discrete service or program areas in vocational education, and the diversity of local administrative structures. To these three we add the multiplicity of agents, contending perspectives and ideologies, and mixed policy messages.

Hoachlander (1982) noted that "many of the shortcomings of the vocational education act are not attributable to 'excessive' federal regulation, but rather to poorly conceived regulation and, in some instance, the outright failure to regulate at all" (p. 440). The reason planning and evaluation linkage is problematic concerns what Benson and Lareau (1982) referred to as the uneasy place of vocational education—that is, in co-existence with the academic track within the comprehensive school systems.

Given the context of vocational education, it is important to find out whether there is congruence among the broad policy goals; the specific regulations created to achieve those goals; and ultimately, the programs implemented at the client level. As Timar and Kirp (1987) asked, "Is there a good fit between the ends (substantive rationality) and the means (formal rationality) used to achieve those ends?" (p. 310). The matching of expectations and outcomes in vocational education was discussed by Lotto (1986) who reported that there is a serious mismatch between them.

The procedural actions that aid the linkage between planning and evaluation can be variously conceived as disjointed incrementalism (Lindblom, 1959), participative decision making (Friedmann, 1973), or pragmatism (Hoch, 1984). Blanton and Alley (1978) proposed some useful procedures for such linkage. Their focus was on the integration of feedback and the cognitive and institutional obstacles to such integration. They discussed two major obstacles: (1) blocks to hearing, attending to, or understanding feedback; and (2) effective difficulties manifested in emotional and ideological resistance to new ideas. Blanton and Alley suggested procedures for improving "hearing"—including cultivating different styles of presentation (visual displays and charts can be useful to supplement the narrative, as well as the timing of presentations), providing audience relevance (reporting separately to each stakeholder group), and articulating interpretive skills (command over quantitative and qualitative arguments). The suggested techniques for overcoming emotional and ideological resistance included increasing the credibility of feedback (focusing more on the use of information than on being judgmental), avoiding polarization between planning and evaluation staff (utilizing matrix decision making), dealing with ideological resistance (increasing the involvement of stakeholders), and pacing findings (gradually collecting and diffusing information and ideas).

One methodological approach that increases the possibility of linkage is what Guba and Lincoln (1987) proposed as the "naturalistic method." This method provides a way to

deal with values conflicts that calls for full collaboration with problem stakeholders. Full collaboration means that stakeholders are given the opportunity to provide input at every stage of evaluation. Evaluation thus becomes a part of the goal-setting or planning process.

The administrative arrangements that facilitate linkage will vary according to local historical and political conditions as well as the nature of the relationship established with federal agencies. Polivka and Stryker (1983) identified three important mechanisms:

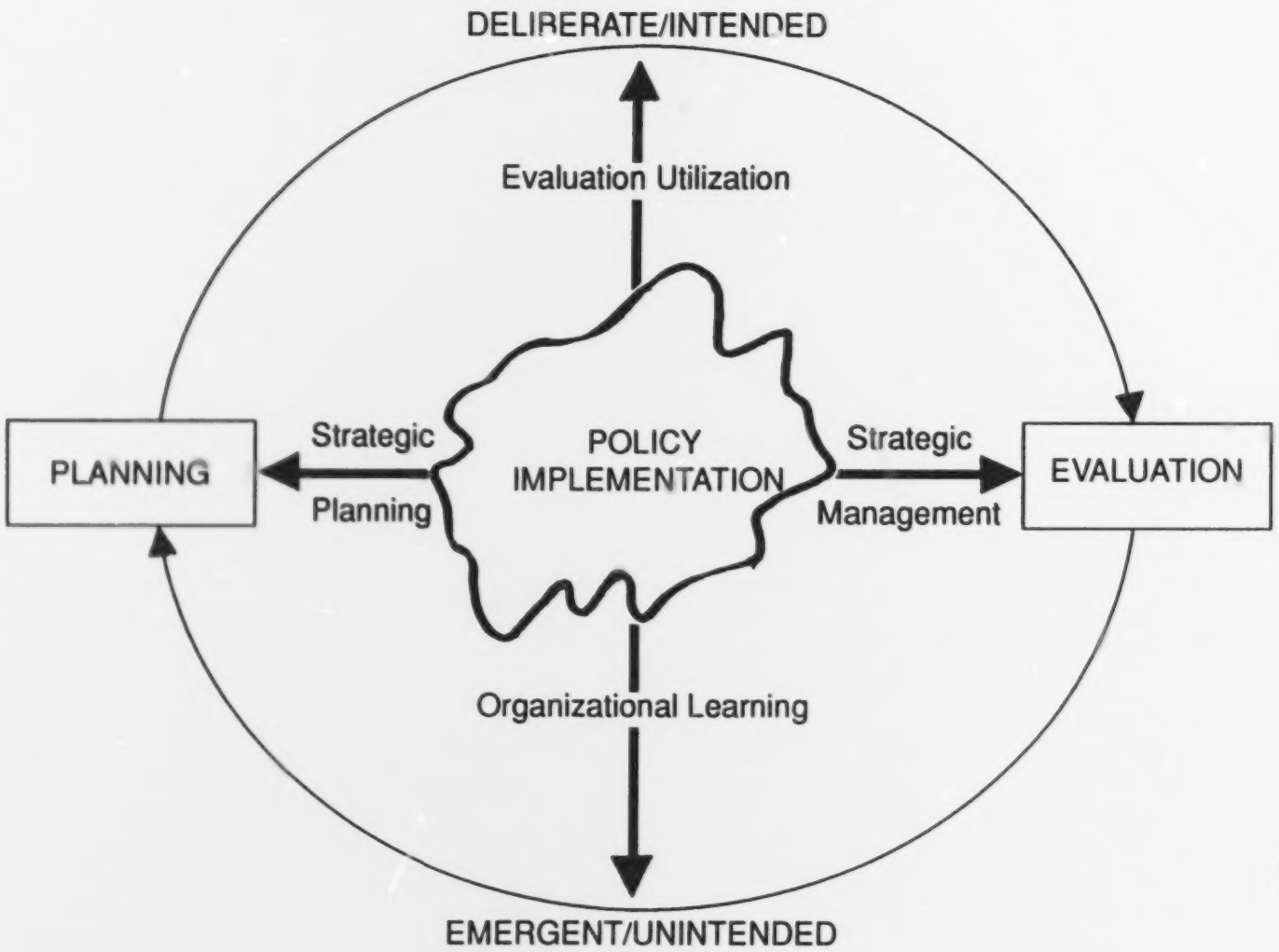
1. The budget development process—review each budget request for program areas where an evaluation has been conducted. This enables the agency to determine the extent to which the request reflects the recommendations generated by the evaluation.
2. Performance agreement monitoring—preparation of annual performance agreement with the planning and budget office.
3. Program budget measures—inclusion of process and outcome variables either used in the conduct of evaluations or developed from evaluation findings in biennial budget recommendations. (p. 257)

A New Metaphor for Linkage

This section began with the need for a new metaphor that relates planning and evaluation as mutually inclusive processes rather than inherently exclusive domains. Hoch (1984) provided the needed metaphor: "doing good and being right." Although developed for the planning process, the metaphor has sufficient power to include the evaluation process. The metaphor captures the pragmatic basis of both planning and evaluation. Thus, pragmatism allows planning and evaluation to be linked. Under this connection, both planning and evaluation become a "process of practical inquiry in which problematic experience stimulates the critical assessment of alternative solutions in a context of democratic participation and debate" (Hoch, 1984, p. 340).

This pragmatic connection between planning and evaluation in vocational program administration can be achieved by institutionalized strategic planning, strategic management, evaluation utilization, and organization learning. The connection is not a direct bonding of the processes but one that is conceptually and practically made possible in the policy implementation process. It is this implementation orientation that encourages linkages between planning and evaluation activities; it does not keep them as two entities, an orientation which often requires external expertise. This institutionalized linkage is presented graphically in Figure 3.

Figure 3: The Pragmatic Linking of Planning and Evaluation



Before embracing pragmatism fully, one needs to consider that the capacity to act and then think pragmatically is also circumscribed by historical context, institutional forms, and cultural bias. In this respect, Oakes' (1986a) proposal for critical reflection and Guba and Lincoln's (1987) proposal for naturalistic inquiry are two important qualifications that need to be incorporated in making the pragmatic connection.

Summary

The present review has emphasized the importance of linking planning and evaluation in vocational education. It has portrayed such linking as taking place in the larger context of policy design and policy implementation. The policy design and implementation process was seen as continuous and cyclical with planning and evaluation facilitating congruence through several mechanisms.

First, a metaphor of conceptual as well as operational linking of planning and evaluation was proposed. The research streams of strategic planning and management, evaluation utilization, and organizational learning provided the empirical basis for conceptual linking. Several recommendations were derived from the literature, including use of naturalistic methods, application of critical methodology in policy debate, use of quality or performance indicators, structure of the budget process, and methods of presentation of data. Many of the recommended procedures in the evaluation utilization literature and many of the proposals for more participative planning approaches (e.g., transactive planning) were equally relevant to the linking process.

Most of what has been reported in this review is theoretical. While many of the findings derive from empirical study of organizations, little or no research on their application to the complex milieu of vocational education exists. A third report prepared for this project presents the results of just such an inquiry using both traditional survey methods and in-depth case studies of exemplary state programs (Elson, Oliver, & Strickland, 1992).

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